

DORNIER RECORD

*England to South America
Non-Stop : Diesel Engines*

GERMAN aviation scored another triumph when, towards the end of last month, a Dornier Do. 18 flying boat fitted with two Junkers Jumo 205 diesel engines flew non-stop from Start Bay, Devon, to Caravellas on the coast of Brazil—5,220 miles in 43 hours. Plans and preparations for the flight had been made very quietly during the previous weeks, and in Germany the general public knew nothing of the attempt until the world's distance record for seaplanes had been successfully beaten by a handsome margin.

The only share in the achievement Great Britain can claim is that we "lent them the start," if a pun may be permitted. The base ship *Westfalen* carried the machine and crew to Start Bay, Devon, where the Do. 18 was catapulted off at 15.05, Central European Time, on Sunday, March 27. The crew of four were Capt Hans Werner von Engel, a D.L.H. pilot "lent" to the Dornier company for the flight, Herr Erich Gundermann, test pilot to the Dornier company, Herr Helmut Röseler, engineer and wireless operator, and Herr Hans Joachim Stein, radio operator, who had made many previous flights across the Atlantic in Dornier flying boats and Hamburger Ha. 139s.

During the earlier stages of the flight head winds were encountered, and it was not until the machine was south-west of the Spanish coast during the night of March 28 that it picked up the north-east trade winds which helped it along until the vicinity of the Equator was reached.

After crossing the line the Do. 18 had varying winds, some-



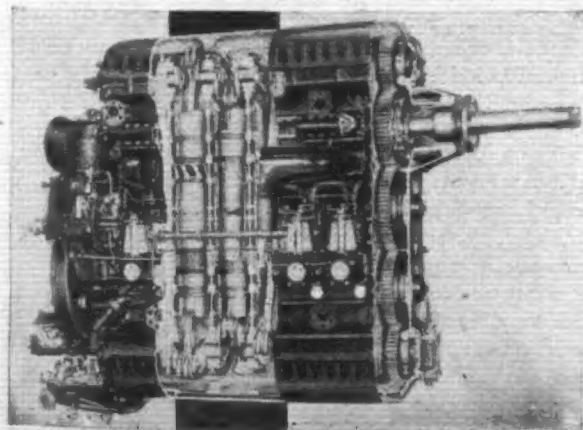
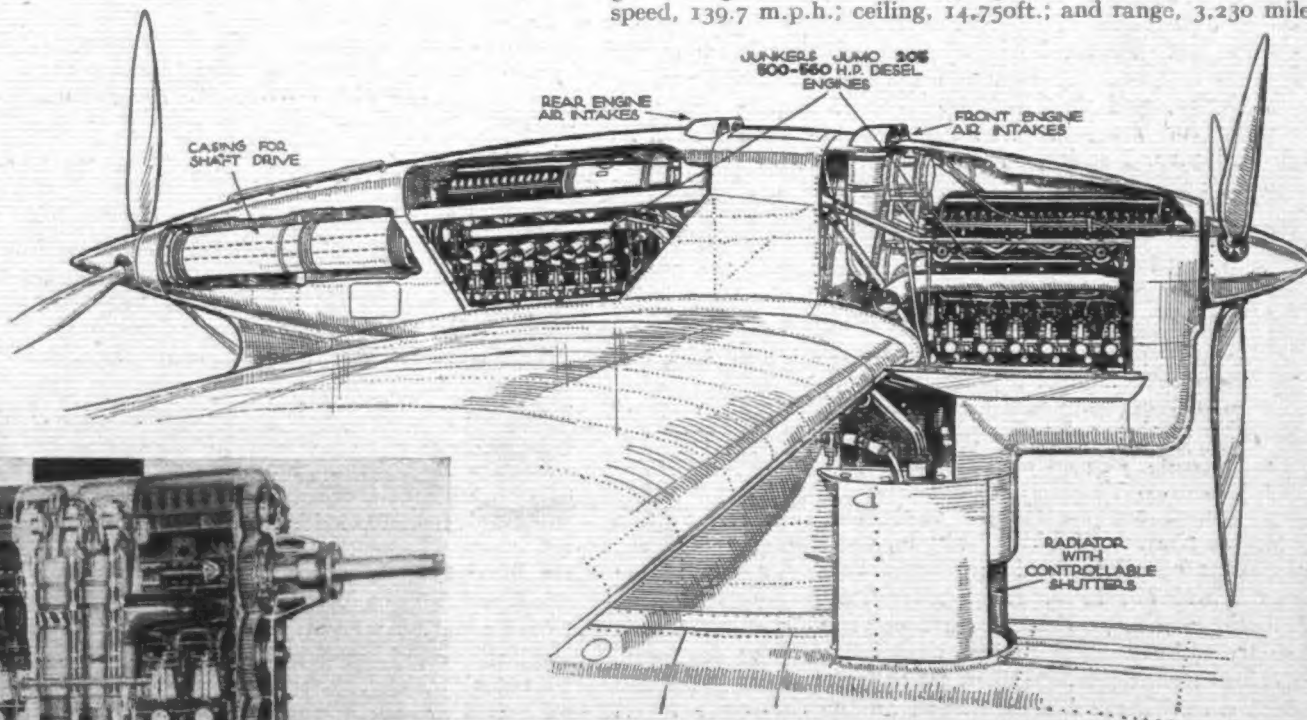
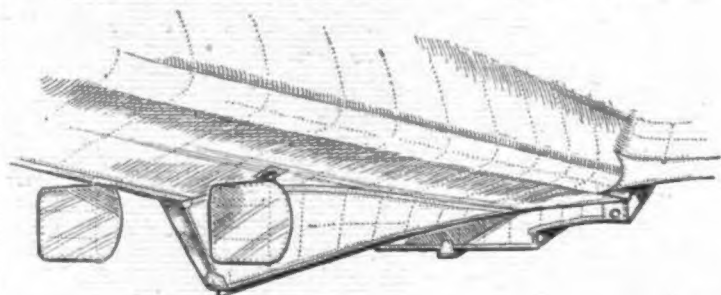
times against it and sometimes on the side. Las Palmas was reached at 3.30 (C.U.T.) on March 28, and the Cape Verde Islands at 11.15. The island of Fernando Noronha, off the coast of South America, was reached at 22.50 (10.50 p.m.). The Do. 18 flew over Pernambuco at 2.05 on March 29, and Bahia was passed at 5 a.m. At 10.05 a.m. the machine landed at Caravellas. The distance covered was approximately 8,400 km. (5,220 miles), so that the previous record, established by the Italian pilot Stoppani, from Cadiz to Caravellas, had been beaten by nearly 860 miles.



The crew : Second pilot Gundermann ; First pilot von Engel ; Stein (radio operator) and Röseler (engineer).

Except for the fitting of extra fuel tanks, the machine used was a standard Dornier Do. 18 flying boat, with two 600 h.p. Junkers 205 diesel engines placed in tandem above the monoplane wing. We are informed by the Junkers works that on this flight the Jumo 205 diesels established another record by the astonishingly low fuel consumption of 155 grammes (0.341 lb.) per h.p. per hour.

Data for the standard Do. 18 are : Weight empty 12,265 lb.; gross weight, 22,000 lb.; top speed 161.5 m.p.h.; cruising speed, 139.7 m.p.h.; ceiling, 14,750ft.; and range, 3,230 miles.



This special *Flight* drawing shows details of the installation of the Jumo diesel engines ; the internal layout of this type of engine is apparent in the photograph. In the small sketch are seen the peculiar longitudinal steps on each side of the main hull, in addition to the twin water rudders.